

What is claimed is:

1. An image forming apparatus, comprising:
at least one color cartridge that supplies at least one color toner;
a monochrome cartridge that supplies monochrome toner;
an image formation unit configured to form an image on an image-transferring member using at least one of the at least one color toner and the monochrome toner; and
a processor electrically coupled to the image formation unit, the processor configured to:
determine whether the at least one color cartridge contains insufficient color toner for printing an image according to a first image job;
queue a second image job, the second image job not requiring the at least one color cartridge, before the first image job requiring the at least one color cartridge if the at least one color cartridge contains insufficient color toner for printing the image of the first image job; and
control the image formation unit to form images in accordance with the queue.
2. The image forming apparatus of claim 1, comprising a plurality of color cartridges, each of the color cartridges supplying a color toner,
wherein the processor is configured to determine whether at least one of the plurality of color cartridges contains insufficient color toner for printing the image according to the first image job, and to queue the second image job not requiring the at least one of the plurality of color cartridges before the first image job.
3. The image forming apparatus of claim 2,
wherein the processor is further programmed to query a user whether to continue printing image jobs not requiring the at least one of the plurality of color cartridges, and

wherein the processor is programmed to control the image formation unit so as to continue printing image jobs not requiring the at least one of the plurality of color cartridges if the user query is positive.

4. The image forming apparatus of claim 3, wherein the processor is further programmed to pause all image jobs if the user query is negative.

5. The image forming apparatus of claim 1, wherein the processor is further programmed to notify a user when the processor determines that at least one color cartridge contains insufficient color toner for printing an image.

6. The image forming apparatus of claim 1, wherein the image forming apparatus provides at least two functions of printing, copying, and sending images by facsimile.

7. The image forming apparatus of claim 1, further comprising at least one sensor for sensing an amount of toner in the at least one color cartridge, the at least one sensor being electrically coupled to the processor.

8. The image forming apparatus of claim 1, wherein the second image job is a monochrome image job and the first image job is a color image job.

9. The image forming apparatus of claim 8, wherein, when the processor determines that the at least one color cartridge contains insufficient color toner for printing an image according to the first image, the processor queues the second image job and a third image job that is a monochrome image job before the first image job.

10. The image forming apparatus of claim 8, wherein, when the processor determines that the at least one color cartridge contains insufficient color toner for printing an image according to the first image job, the processor queues all pending monochrome image jobs before the first image job.

11. The image forming apparatus of claim 1, wherein both of the first image job and the second image job are color image jobs.

12. The image forming apparatus of claim 1,
wherein the processor is further programmed to query a user whether to continue printing images in monochrome that require a color toner determined to be insufficient for printing an image, and
wherein the processor is programmed to control the image formation unit so as to continue printing images in monochrome that require the color toner determined to be insufficient for printing an image if the user query is positive.

13. The image forming apparatus of claim 1, wherein the processor is further programmed to:

if only image jobs are queued that require a color cartridge containing insufficient color toner for printing an image, then
pause until an image job is received that does not require the color toner determined to be insufficient for printing an image; and
display a message indicating the at least one color cartridge contains insufficient color toner for printing an image.

14. A method of forming images on an image-transferring member, comprising:

providing at least one color cartridge that supplies at least one color toner;

providing at least one monochrome cartridge that supplies monochrome toner;

determining whether the at least one color cartridge contains insufficient color toner for printing an image according to a first image job;

queuing a second image job, the second image job not requiring the at least one color cartridge, before the first image job requiring the at least one

color cartridge if the at least one color cartridge contains insufficient color toner for printing the image of the first job; and
forming an image according to the queuing.

15. The method of claim 14, wherein the second image job is a monochrome image job and the first image job is a color image job.

16. The method of claim 14, wherein both the first image job and the second image job are color image jobs.

17. The method of claim 14, further comprising:
query a user whether to continue printing image jobs not requiring the at least one of the plurality of color cartridges,
printing at least one image job not requiring the at least one of the plurality of color cartridges if the user query is positive, and pausing all image jobs if the user query is negative until the one of the plurality of colorants is refilled.

18. The method of claim 14, wherein the second image job and a third image job are monochrome image jobs and the first image job is a color image job, and the second and third image jobs are queued to be printed ahead of the first image job.

19. An image forming apparatus, comprising:
at least one color cartridge means that supplies at least one color toner;
a monochrome cartridge means that supplies monochrome toner;
an image forming means for forming an image on an image-transferring member using at least one of the at least one color toner and the monochrome toner;
a processing means electrically coupled to the image forming means, the processing means

for determining whether the at least one color cartridge means contains insufficient color toner for printing an image according to a first image job; and

for queuing a second image job, the second image job not requiring the at least one color cartridge means, before the first image job requiring the at least one color cartridge means if the at least one color cartridge means contains insufficient color toner for printing the image of the first image job; and

means for controlling the image forming means for forming images in accordance with the queue.

20. The image forming apparatus of claim 19, wherein the means for processing queues monochrome image jobs before color image jobs when the processing means determines that the at least one color cartridge means contains insufficient color toner for printing the image according to the first image job.